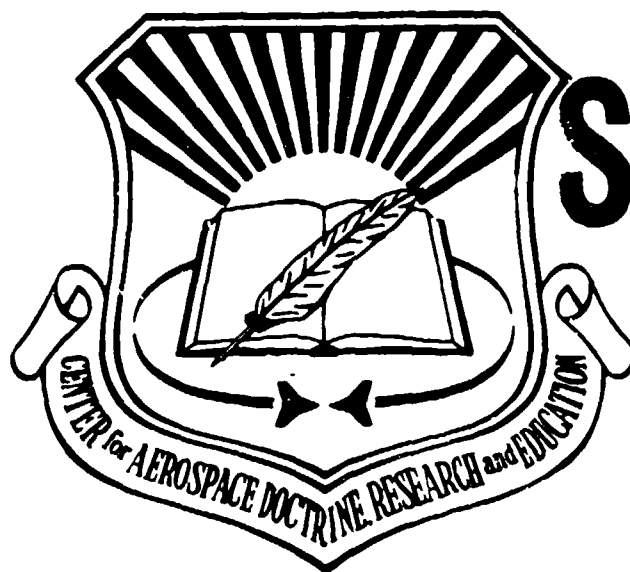


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Anatomy of a Failure

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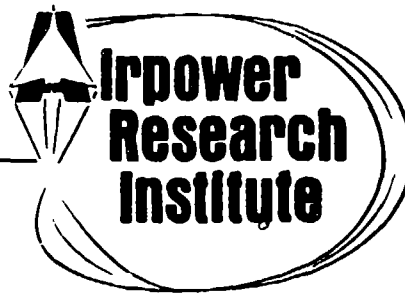
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ROLLING THUNDER 1965:

Anatomy of a Failure

by

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ABSTRACT

The Vietnam War was many things to many people. It represented, among many other things, the clash between the views and objectives of America's civilian leadership and traditional military doctrine. It illustrated the difficulty in prosecuting a conventional war against an unconventional enemy and in waging a limited war against an enemy waging an essentially unlimited war. The Rolling Thunder campaign, the longest sustained aerial bombing campaign in history, was a microcosm of the problems the United States faced in the war as a whole.

American air power doctrine was based on the concept of strategic bombardment, a concept based on two fundamental assumptions: The first assumption was that any American war would be waged to destroy the enemy's ability to wage modern warfare. The second assumed that any enemy the United States might engage would be a modern industrialized state. In Vietnam, neither assumption held true. The American objective, when engaging the North Vietnamese, was to persuade the North Vietnamese to desist in their support of the war in South Vietnam. Further, North Vietnam was anything but a modern industrialized state.

The resulting aerial campaign, Rolling Thunder, was a far cry from that envisioned in plans developed before the American intervention. A campaign of graduated pressure intended to signal "resolve" to the North Vietnamese, Rolling Thunder failed to persuade the North Vietnamese and

it failed to destroy their ability to prosecute their war in South Vietnam.

— This study illustrates how American air power doctrine developed in a manner incompatible with the employment required over North Vietnam and how even the best military advice can be ignored if it does not conform to the objectives of the civilian leadership. Moreover, the study indicates that even if the military had been allowed to carry out its desired intensive bombing campaign, the results might not have changed. Finally, the study indicates the problems inherent in developing effective air power doctrine across the spectrum of modern conflict.

THE ENDURING ENIGMA OF THE VIETNAM WAR

More than a decade after the fall of Saigon to the North Vietnamese army, the American failure in the Vietnam War remains an enigma. No one has convincingly and authoritatively explained how a military superpower such as the United States could be humbled by a small, backward South Asian nation and forced to withdraw ignominiously from a war in which it had invested over 50,000 lives and untold treasure. The mystery remains in spite of a voluminous but incomplete historiography of the war and of the strategy that led to little but failure and frustration for the United States.¹ Much of the available literature centers on a search for scapegoats for the American failure.² Some of the senior participants in the war have written memoirs (often with an all-too-obvious ax to grind), but many memoirs of key decision makers have never appeared, creating an information void that still waits to be filled.³

Part of the problem that has resulted in a largely unsatisfactory historiography is found in the scope of the struggle in Vietnam. The war spanned eight years of large-scale American combat involvement and many more years of more limited military support. The American effort sprawled across all of South Vietnam, through the air over North Vietnam, and continually spilled over into neighboring Laos and Cambodia. The complexity of the war is no less breathtaking to the historian and analyst. The byzantine-political machinations within and between Saigon, Hanoi,

Washington, Peking, and Moscow nearly defy description.⁴ The war in the field encompassed nearly every form of combat, from large-unit conventional mechanized operations to small-unit guerrilla activities, and also encompassed many efforts to pacify a reluctant and suspicious peasantry. Indeed, the American effort in Vietnam was large, long, and complex.

It is difficult to draw any accurate generalizations about such a complex subject without first carefully examining the component parts of the complex whole. This paper focuses on just one part of one American campaign during the Vietnam War. Rolling Thunder was the code name for the American bombing of North Vietnam from early 1965 to late 1968, the longest aerial-bombardment campaign in the history of American air power. Although Rolling Thunder continued for over three years, this paper examines only one year, 1965.

Why study the Vietnam War? Why study Rolling Thunder? And why limit the study to 1965? There are legitimate questions that should be addressed. As to the first question, the American failure in Vietnam is more than a passing historical curiosity. Accurate analysis of the American failure may reveal a great deal about the American political and military establishments as they pursue and are used to pursue national security objectives. This information may be particularly valuable should the United States again become engaged in a murky conflict within the

third world that involves American vital interests in ill-defined ways.

More specifically, the Rolling Thunder campaign is also a subject worthy of much more than historical curiosity. Rolling Thunder was a trial by fire of the air power doctrine painstakingly developed during the previous three decades. Unfortunately, the campaign failed to accomplish its intended purposes. Thus, an examination of Rolling Thunder should reveal a great deal about the development and application of air power doctrine and the impact of air power in limited wars.

Finally, this paper is limited to 1965 for several reasons. First, 1965 offers a sharply definable segment of the Rolling Thunder campaign. The campaign began in March of 1965, and the year ended with the first major bombing pause directed by authorities in Washington, D.C. Second, 1965 was the year of decision for the United States in Vietnam. During that year, Rolling Thunder began in the skies over North Vietnam, and the United States committed troops in large numbers to ground-combat operations in South Vietnam. The decisions that in large part dictated the course of the American effort for the next three years were made in 1965.

Two fundamental factors seem particularly important in an analysis of why Rolling Thunder failed to achieve its objectives. The first is how the American policy-making

elites perceived the problem. It matters not whether the perceptions were accurate or inaccurate. The perceptions were real whether they were right or wrong, and they played a significant if not dominant role in determining national objectives in Vietnam and the role of the military in pursuit of those objectives. Military doctrine, the second important factor, conflicted with the perceptions held by civilian policymakers. Simply and directly defined, doctrine consists of a body of beliefs concerning the best way to conduct military affairs. Not only did civilian perceptions and preferences clash with air power doctrine, but two of the basic assumptions undergirding air power doctrine were found to be irrelevant in the Vietnam situation.

The failure of the American military to develop an air power doctrine consistent with the constraints that cannot be avoided in wars fought for limited objectives precipitated the crippling clash between doctrine and perceptions. As a result, air power was unwillingly tasked to perform a mission for which it was ill-equipped and doctrinally unprepared.

Part two of this essay will examine some of the most important perceptions of the Vietnam problem held by the senior American civilian leadership in 1964 and 1965. Part three examines the evolution of American air power doctrine, the same doctrine with which the United States began the Rolling Thunder campaign. Part four is a brief and broad

recapitulation of the Rolling Thunder campaign as it unfolded in 1965, illustrating the clash between perceptions and doctrine, and the outcome of that clash. Part five draws all the lines of argument together and offers some conclusions relevant to the future use of air power.

Before proceeding, the reader should realize that any study of the Vietnam War faces serious limitations. The documentary history of the war is incomplete, and the records available are often suspect. A large percentage of the American documentation remains classified and unavailable to most historians. Equally frustrating is the fact that much of the available documentation is based on "estimates of the situation" rather than descriptions of the situation. There are few reliable records available from a defeated and prostrate enemy, such as were available after World War II. Records, histories, and interviews released by Hanoi are suspect of being less than totally objective. With these caveats in mind, we can proceed.

AMERICAN PERCEPTIONS OF THE VIETNAM PROBLEM

Five American perceptions about the Vietnam War were particularly important to the conduct and outcome of the Rolling Thunder campaign in 1965. We will treat each of these perceptions in turn.

Vietnam and the American World View

The United States came to the Vietnam War carrying considerable intellectual "baggage." The breakup of the victorious World War II alliance, the Soviet subjugation of Eastern Europe, the fall of China to the Chinese Communists, the Korean War, and finally the Cuban missile crisis were considered to be but prologue for the struggle in Vietnam.

It is reasonably clear from the documents available that in 1964-65 many of the most important policymakers in the United States government considered the problems in Vietnam to be one more part of a larger Communist effort to change the "correlation of forces" to a position more favorable to the so-called Communist bloc. A Department of State white paper entitled "A Threat to the Peace: North Viet-Nam's Effort to Conquer South Viet-Nam," issued in 1961, proclaimed:

While attention is diverted elsewhere--to Berlin, to negotiations over Laos, to turmoil in the Congo, to the United Nations itself, as well as to dozens of other problems--the Communist program to seize South Viet-Nam moves ahead relentlessly.⁵

It is significant that the State Department referred to the situation in Vietnam as a "Communist" program to seize

South Vietnam rather than a "North Vietnamese" program of aggression against South Vietnam. The impression given was that the problems in South Vietnam were but a small part of a much larger problem. Later in the same document, the State Department made that impression unmistakably clear.

The basic pattern of Viet Cong (Vietnamese Communist) activity is not new, of course. It operated with minor variations in China, and Mao Tse-tung's theories on the conduct of guerrilla warfare are known to every Viet Cong agent and cadre. Most of the same methods were used in Malaya, in Greece, in the Philippines, in Cuba, and in Laos.⁶

In another white paper of 1965 entitled "Aggression from the North: The Record of North Viet-Nam's Campaign to Conquer South Viet-Nam," the Department of State asserted that "above all, the war in Viet-Nam is not a spontaneous and local rebellion against the established government." In the State Department's view, "a Communist government has set out deliberately to conquer a sovereign people in a neighboring state." And in a final reference to other Communist-sponsored struggles, the State Department proclaimed that "North Viet-Nam's commitment to seize control of the South is no less total than the commitment of the regime in North Korea in 1950."⁷

The point at issue in this essay is not whether the State Department was correct or incorrect in its analysis of the situation in Vietnam. The American perception, right or wrong, placed the Vietnam War in the context of a worldwide struggle with communism, a struggle controlled and directed

by Moscow and Peking. The struggle in Vietnam was not, at least in the State Department's view, a civil war for control of a nation that had been artificially divided by foreign powers in 1954. Rather than facing an enemy in Vietnam motivated by the passions of nationalism, the United States and its allies were facing a coldly calculating enemy operating as part of a much larger struggle for world power, again in the State Department's view.

The perception of a much larger problem (of which South Vietnam was only a small but important part) would play a significant role in how the United States would approach the war. The "larger conflict" perception meant that the real problem was not in South Vietnam. The heart of the problem was elsewhere--in North Vietnam, in China, and in the Soviet Union. This perception would form a major part of the rationale for initiating the Rolling Thunder campaign in 1965.

Fear of Escalation

Because the US government maintained that the situation in South Vietnam was part of a much larger Communist effort, it was only natural that senior government officials would be wary of the possibility of uncontrolled military escalation. If the problems in South Vietnam were the result of Hanoi's political ambitions, and Hanoi was supported if not controlled by the major Communist powers--the Soviet Union and China--then escalation could, in the

extreme, result in a superpower nuclear confrontation. Gen William Westmoreland referred to "an almost paranoid fear of nuclear confrontation with the Soviet Union" that influenced many of the decisions made in Washington about the conduct of the war.⁸ Although the fear of a nuclear confrontation may have reached excessive proportions, such an occurrence could result only from the most extreme and perhaps improbable escalatory steps. A much more immediate and probable confrontation was much closer at hand.

The overriding fear was that the Chinese would intervene directly if the United States began intense military operations in Vietnam, particularly if the United States assaulted North Vietnam. The memories of the Korean conflict and the Chinese assault across the Yalu River remained fresh in the minds of the American leadership in 1965. General Westmoreland described the fear of Chinese intervention as a phobia, particularly in regard to air strikes against North Vietnam.⁹

Perhaps the most direct public expression of American concerns about possible Chinese intervention came from President Lyndon Johnson on 7 April 1965. Speaking in Baltimore, Johnson raised the spectre of Chinese ambitions in Asia, and resurrected memories of the Korean conflict.

Over this war--and all Asia--is another reality: the deepening shadow of Communist China. The rulers in Hanoi are urged on by Peiping. This is a regime which has destroyed freedom in Tibet, which has attacked India, and has been condemned by the United Nations for aggression in Korea. It is a nation which is helping the forces of

violence in almost every continent. The contest in Viet-Nam is part¹⁰ of a wider pattern of aggressive purposes.

Lyndon Johnson faced many of the same problems in Vietnam that Harry Truman faced in Korea. Johnson's principal problems were to fight the war successfully without widening the conflict to include intervention by the major Communist powers. This problem would color nearly every decision Johnson made about the war, would force him (from his point of view) to take personal command of the air war in North Vietnam, and would frustrate the military leadership, just as they had been frustrated during the Korean War.

American Objectives

Casting the Vietnam conflict as part of a much larger worldwide struggle meant that American objectives in Vietnam would be part of a much broader agenda, much of which would have only tenuous connections with Vietnam itself. The stakes wagered in Vietnam, from the American point of view, included American credibility and reputation, the stability and strength of Western defense arrangements and alliances, and the deterrence of other aggressive Communist ventures.

Although many of the American objectives reflected a broad hidden agenda, within Vietnam the fundamental political objectives of American involvement were relatively clear-cut. As President Johnson stated in a 1965 speech:

Our objective is the independence of South Viet-Nam and its freedom from attack. We want nothing for ourselves--only that the people of South Viet-Nam be allowed to guide their own country in their

own way. We will do everything necessary to reach that objective, and¹¹ we will do only what is absolutely necessary.

The broad political objective was simple and clear-cut. However, the military's role in achieving that objective was much more obscure. According to Johnson's assistant secretary of state for Far Eastern affairs, William Bundy, the primary focus of the American military effort was to "get Hanoi and North Vietnam (DRV) support and direction removed from South Vietnam."¹² It is particularly important to note that the American military objective did not contemplate "winning" in the sense that the United States and its Allies had won World War II. The available policy documents rarely made reference to defeating the enemy. Indeed, General Westmoreland notes that in 1965, Secretary of Defense Robert S. McNamara defined the American military objective by asking Westmoreland "how many additional American and Allied troops would be required to convince the enemy he would be unable to win."¹³ In essence, the American military objective was not to defeat or destroy the enemy. Rather, the military objective was to persuade the enemy that he could not win--a far cry from defeating the enemy in any traditional sense.

Enemy Strategy

American perceptions of enemy strategy also influenced the formulation of American strategy. To Westmoreland, the senior American commander on the scene, it appeared that in

1964-65 the enemy was entering the so-called third phase of protracted revolutionary warfare. The balance of power in South Vietnam was shifting rapidly as an emboldened enemy began engaging in large-unit mobile warfare. In Westmoreland's view, two wars had to be fought. The first and most immediate problem was to combat the large main-force enemy formations, the "bully boys" as Westmoreland called them. The second problem was to defeat guerrilla forces at the village level. To Westmoreland, main-force units provided the enemy's momentum and irregular or guerrilla forces could not be defeated and the countryside pacified until the threat of the bully boys was controlled and eliminated.¹⁴ The perceived need to concentrate on enemy main-force units in South Vietnam would affect the conduct of the Rolling Thunder campaign in North Vietnam.

The Perception of Military Crisis

A sense of crisis pervaded the American political and military command structure as 1965 began. The military situation in South Vietnam had deteriorated significantly since 1959, when the North Vietnamese openly undertook support of the rebellion against the Diem regime in South Vietnam. Following Diem's overthrow and assassination in 1963, the political situation in South Vietnam became chaotic. With the strongman dead, the generals who had overthrown Diem struggled for power among themselves in a series of ccups and countercoups that lasted until mid-1965.

The political chaos in Saigon was paralleled by military problems in the field. By March 1964, American intelligence estimated that 40 percent of the territory of South Vietnam was either under enemy control or substantially under its influence.¹⁵ The Army of the Republic of Vietnam (ARVN) became less and less effective as a field force. Desertion was increasing, ranging from 5,000 to 7,000 per month.¹⁶ By mid-1964 Hanoi was equipping the insurgents with standardized individual weapons and light artillery.¹⁷

In July 1964, American intelligence sources revealed the first positive information indicating direct participation in the struggle by regular North Vietnamese army (NVA) units. By the end of the year, the situation was approaching crisis proportions. As General Westmoreland noted:

Capitalizing on the political disorder which afflicted the Saigon government, upon the weakness of government administration throughout the country and upon deteriorating morale in the Vietnamese Armed Forces, the North Vietnamese and their¹⁸ southern affiliates were moving in for the kill.

As 1965 began, the crisis was at hand, at least in the American view. Something, it seemed, had to be done and done quickly. American air power could respond quickly, and even better, could strike closer to the heart of the problem in North Vietnam. The air power response was Rolling Thunder. However, American air power doctrine made no provisions for the restraints that would be imposed because of American perceptions of the problem.

THE DEVELOPMENT OF AMERICAN AIR POWER DOCTRINE

Although the deepest roots of air power doctrine are found in World War I, the full-fledged development of a distinctive American air power doctrine did not get under way until the 1920s. Following the war, the most important and influential American air power advocate was Gen Billy Mitchell, who had been a senior American aviation commander in France. He became the gadfly of the Army staff, advocating such revolutionary notions as a vulnerability of warships to air attack, a single department of aviation including naval aviation, and the potential decisiveness of strategic bombardment.¹⁹

Mitchell's initial proposals in the 1920s advocated an air force dominated by pursuit aircraft. Over the course of the decade, his conception shifted toward strategic bombardment, a mission he came to believe would change the face of modern warfare. Tied to what he believed to be an unsympathetic Army, Mitchell, the firebrand apostle of air power, was court-martialed in late-1925 and resigned from the Army on 1 February 1926.²⁰ On 5 February 1926, he appeared before the House Committee on Military Affairs and presented a statement that represented the culmination of his thinking about war in general and the role of air power specifically.

There has never been anything that has come which has changed war in the way the advent of air power has. The method of prosecuting a war in the old days always was to get at the vital centers of the country in order to paralyze the resistance. This

meant the centers of production, the centers of population, the agricultural districts, the animal industry, communications--anything that tended to keep up war. Now, in order to keep the enemy out of that, armies were spread in front of those places and protected them by their flesh and blood. . . . Now we can get today to these vital centers by air power . . . straight to the vital centers, the industrial centers through the use of an air force and hit them. That is the modern theory of making war.²¹

The Army saw things quite differently. Rather than an independent air force flying missions to destroy the enemy's vital centers, the Army believed that air power would be most useful in a supporting role. Typical of this view was a 1926 War Department training regulation which declared:

The mission of the Air Service is to assist the ground forces . . . by destroying enemy aviation, attacking enemy ground forces and other enemy objectives on land or sea, and in conjunction with other agencies to protect ground forces from hostile aerial observation and attack.²²

In spite of the obvious dangers to their military careers, American airmen continued to preach the Mitchell vision of air power. The fact was, however, that the visions of airmen were not technologically possible during the 1920s. While airmen imagined what air power could accomplish someday, less imaginative Army ground officers saw the reality of slow, lumbering, wood and fabric bombers capable of relatively short-range flights, carrying very limited bomb loads. This problem did not begin to disappear until 1932 when the Martin B-10 bomber first flew. The B-10 was the first modern bomber, an all-metal monoplane with a top speed of over 200 miles per hour and a service ceiling

over 20,000 feet.²³ With its retractable landing gear, it was nearly as fast as the best fighters of the day which, because of their thin wings, were still equipped with fixed landing gears.²⁴

The doctrine for the use of such technological marvels as the B-10 was hammered out during the 1930s at the Air Corps Tactical School at Maxwell Field in Montgomery, Alabama. The faculty members at the school were the heirs to Mitchell's ideas and passions. Indeed, many had served with Mitchell during the turbulent 1920s. The Tactical School doctrine, elaborating on Mitchell's ideas, was best summed up in a lecture delivered by Capt (later Lt Gen) Harold George.

The real object of war is to overcome the hostile will. When that is accomplished, the object of war has been attained. Therefore, the basic purpose, the fundamental object of war, is to force the will of one nation upon another nation; to overcome the hostile will.

The destruction of the military forces of the enemy is not now and never has been the objective of war; it has been merely a means to an end,--merely the removal of an obstacle which lay in the path of overcoming the will to resist.

The trend in modern nations has been toward specialization in industry and agriculture, which make for large territories which are not self-supporting. The city dweller is dependent upon other communities for nearly everything he consumes, and the consumer and producer are brought together only through the medium of intricate systems of modern transportation. In large cities many of the workers are not self-sufficient even for their means of locomotion between home and work. Nearly everyone is dependent upon systems of public works which provide elements essential to daily life; electric

power, sources of fuel, and of water. All industry is dependent upon electric power.

It appears that nations are susceptible to defeat by the interruption of this economic web. It is possible that the moral collapse brought about by the break-up of this closely knit web would be sufficient; but connected therewith is the industrial fabric which is absolutely essential for modern war.²⁵

The influence of the Tactical School was reflected in the 1935 version of the War Department training regulation which in 1926 had proclaimed air power to be a supporting arm of the ground forces. The 1935 version made no mention of a supporting role, and listed strategic bombardment as the principle mission of air power.²⁶ The Tactical School was able to successfully sell the ideas of Hal George and others for at least two major reasons. First, the ideas were broadcast in a school environment in which the students were the most promising aviators in the Army Air Corps. Second, the faculty members were carefully chosen from among those with the brightest futures. Many of the Tactical School faculty members went on to senior command and staff positions in World War II.²⁷

As a result of the influence of the Tactical School, the Army Air Forces entered World War II with a doctrine that emphasized the decisive role of strategic bombardment in modern warfare. However, the other roles of air power were not ignored in the doctrine. The Tactical School "readily acknowledged the usefulness of air forces in support of surface forces,"²⁸ and the doctrinal publications

reflected that perceived usefulness. The weight of emphasis, however, was on strategic bombardment because of beliefs about its decisiveness, which helps to explain why the United States entered World War II with the two best heavy bombers in the world (B-17, B-24) but could not field a first-class fighter aircraft until 1943.

The airmen who developed American air power doctrine during the 1930s had the opportunity to implement their ideas during World War II. The results of the strategic bombing efforts in that war are still clouded in controversy. Opponents of strategic bombardment point out that strategic bombing did not "win the war" by itself and that armies and navies still had to be defeated on the field of battle.

Advocates of strategic bombing see the results in a very different light. They note that the bombing effort was hindered by many factors beyond their control. In the European theater, for example, the effort suffered from the slow buildup of aircraft and crews, unexpectedly effective opposition by the Luftwaffe, and diversions of effort away from Germany to different theaters of operations (e.g., North Africa) and to nonstrategic targets (e.g., submarine pens, and tactical support for the D-day invasion). As a result, airmen point out, the majority of the bomb tonnage was dropped on Germany well after the Allied invasion of France.

The opinions of airmen might be discounted as parochial. However, advocates of strategic bombardment also point to the results of the United States Strategic Bombing Survey for support. The bombing survey was established by the War Department upon orders from the president in November 1944. The survey was headed by a distinguished group including such notables as George W. Ball, John Kenneth Galbraith, Rensis Likert, and Paul Nitze.

After sifting through all the available evidence, the survey concluded that

Allied air power was decisive in the war in Western Europe. . . . It brought the economy which sustained the enemy's armed forces to virtual collapse, although the full effects of this collapse had not reached the enemy's front lines when they were overrun by Allied forces. It brought home to the German people the full impact of modern war with all its horror and suffering. Its imprint on the German nation will be lasting.

In the Pacific theater, there were fewer questions about the impact of air power. Air power had shattered the Japanese cities and industrial production, resulting in the surrender of Japan without invasion. And, of course, there was the atomic bomb, although its importance in ending the war may have been overestimated. The bombing survey found that

based on a detailed investigation of all the facts, and supported by the testimony of the surviving Japanese leaders involved, it is the Survey's opinion that certainly prior to 31 December 1945, and in all probability prior to 1 November 1945, Japan would have surrendered even if the atomic bombs had not been dropped, even if

Russia had not entered the war, and even³⁰ if no invasion had been planned or contemplated.

"True believers" in strategic bombing believed themselves vindicated by the bombing survey. However, the air power doctrine developed and used during World War II was not limited to strategic bombardment. Emphasis was placed on the strategic mission because of its potentially decisive impact. But tactical missions in more direct support of surface forces were not ignored. The first priority of tactical air power was to achieve and maintain air superiority within the theater of operations. The second priority of tactical air power was the interdiction mission, a mission which complemented strategic bombing. If the enemy's war-making wherewithal could not be destroyed at its source by strategic bombing, then it should be destroyed en route to the front lines by tactical interdiction missions. The July 1943 version of War Department Field Manual 100-20, Command and Employment of Air Power, regarded interdiction as a mission with significant potential.

The disruption of hostile lines of communication (and at times lines of signal communications), the destruction of supply dumps, installations, and the attack on hostile troop concentrations in rear areas will cause the enemy great damage and may decide the battle. This accomplishes the "isolation of the battlefield." If the hostile force is denied food, ammunition, and reinforcements, aggressive action on the part of our ground forces will cause him to retire and the immediate objective will be gained. Massed air action on these targets with well-timed exploitation by ground forces should turn the retirement into rout.³¹

One of the most studied attempts to "isolate the battlefield" was Operation Strangle, conducted in Italy from 19 March through 11 May 1944. The plan was to isolate the German forces from their sources of supply, perhaps even forcing them to withdraw. The situation seemed ideal for such an ambitious effort. Italy's geography limited the lines of communication and the scope of operations while hindering German attempts to circumvent the effects of interdiction. In all, 50,000 effective sorties were flown against German lines of communication and 26,000 tons of bombs were dropped during the operation. Although the Germans were never completely isolated, they did face serious resupply difficulties. The lack of an Allied offensive to use up available German supplies meant that the Germans were not obliged to withdraw. However, when the Allied ground offensive finally began on 12 May, the Germans found themselves unable to shift men and material along the front to meet changing situations because of the damage done to their lines of communication.³² As British Air Marshal Sir John Slessor later stated, air power "cannot by itself enforce a withdrawal by drying up the flow of essential supplies [when the enemy] is not being forced to expend ammunition, fuel, vehicles, engineer stores, etc., at a high rate."³³

The second chapter in the development of American air power doctrine began just as the first chapter was ending.

The theme of the second chapter was nuclear weapons and how they should fit into air power doctrine. However, the revolution in destructive power presented by nuclear weapons created considerable confusion. The confusion was compounded by several other factors: The fact that only the United States had the weapons and was projected to have a monopoly for several years, and the shock of the rapid Soviet development of atomic weapons; the dismemberment of the victorious Allies into rival Communist and anti-Communist camps; the unwillingness of the United States to withdraw from international power politics as it had done after World War I; the reorganization of the American military establishment and the creation of the Department of Defense, including bitter interservice arguments over roles and missions; and exigencies of the moment such as the civil war in Greece, the Berlin blockade, the fall of China, and finally, the Korean War.

The doctrine that guided air efforts in World War II was essentially the same doctrine used in the Korean War, with one vital change. The Korean conflict was a war fought for very limited objectives, and President Truman limited military action to the Korean peninsula for fear that if not limited, the war would escalate into a major East-West confrontation. True to its doctrine, the newly independent American Air Force conducted strategic bombing in North Korea but quickly exhausted the list of strategic targets.

North Korea had few "vital centers" and a primitive "economic web" and was not the primary source of enemy war materials. Rather, the sources of these materials were located in other Communist-bloc countries declared "off limits" to strategic attack in a limited war.

With strategic bombardment playing only a limited role, tactical air power came to the fore, particularly interdiction efforts. A 10-month long campaign against North Korean rail lines, also named Operation Strangle, achieved its stated objectives (slowing and disrupting the enemy's logistical support system); but, like its namesake in Italy, the campaign could not completely isolate the battlefield. By husbanding their supplies and restricting their activities in a war that had reached a stalemate, the enemy forces were apparently able to increase their combat potential. On 21 May 1952, at the end of the rail interdiction campaign, Gen Mathew Ridgway observed, "I think that the hostile forces opposing the Eighth Army . . . have substantially greater offensive potential than at any time in the past."³⁴ As in Italy in 1944, interdiction was countered to a considerable extent by the enemy's ability to conserve its resources and by vigorous and clever efforts to repair or overcome the damage done to its transportation system by air strikes.

In the aftermath of the Korean War, the Air Force produced the first of its own doctrinal manuals, and did so during a period of attempts to limit spending for national

defense. Air power, particularly when combined with nuclear weapons, appeared to be a way to fight wars on the cheap. As a result, the national defense structure began to rely more and more on nuclear weapons and air power to deter not only major wars, but also more limited assaults on American vital interest.

In several speeches delivered during October 1956, Air Force Secretary Donald Quarles professed to find it hard to understand how the United States could successfully deter general war without also being able to deter or win little wars. "It seems logical," he said, "if we have the strength required for global war we could handle any threat of lesser magnitude. . . . From now on, potential aggressors must reckon with the air-atomic power which can be brought to bear immediately in whatever strength, and against whatever targets, may be necessary to make such an attack completely unprofitable to the aggressor."³⁵

Air Force basic doctrinal manuals published during the decade of the 1950s continued to reflect the basic belief in strategic bombardment as the most important role for air power. In the 1954 manual, for example, the Billy Mitchell refrain was stated anew: "Air forces find their greatest opportunities for decisive actions in dealing immediately and directly with the enemy's warmaking capacity. . . ."³⁶ The same manual touted the use of nuclear weapons in making attacks on the enemy's warmaking capacity: "The use of weapons of mass destruction in air operations against the heartland will result in effects out of all proportion to the effort expended and the risks involved."³⁷ By 1957,

Secretary of Defense Charles Wilson was telling the Congress:

There is very little money in the budget we are proposing to you now for the procurement of so-called conventional weapons . . . [because] we are depending on atomic weapons for the defense of the nation. Our basic defense policy is based on the use of such atomic weapons as would be militarily feasible and usable in³⁸ a smaller war, if such a war is forced upon us.

The Air Force was the beneficiary of such attitudes and received more than the lion's share of the defense budget throughout the 1950s. The budgetary imbalance eventually resulted in the public outcry of Gen Maxwell Taylor in his book The Uncertain Trumpet, published shortly after his retirement from the Army. Taylor called for the development of a more flexible military response, including the force structure necessary to fight small wars with conventional weapons rather than just being prepared for, as he saw it, the big war and nuclear confrontations.³⁹

The American strategy that relied on nuclear weapons and the complementary air power doctrine resulted in appropriate force structures and training. The Strategic Air Command became the dominant command within the Air Force and was equipped with a large fleet of jet-powered heavy bombers. Tactical aircraft also reflected the trend as the Air Force obtained supersonic fighters and fighter-bombers that were capable of delivering nuclear weapons and aircrew training concentrated on nuclear weapon delivery. This training concentration would later haunt the Air Force in

the early days of the conventional bombing effort in North Vietnam.

The Kennedy administration brought with it a broadening of outlook and an attempt to provide the kind of flexibility that Taylor had called for to meet the challenge of small wars on the periphery of American national interests.⁴⁰ With this shift in direction came a new emphasis on "unconventional warfare" capabilities, including the establishment of the Air Commandos at Eglin Air Force Base, Florida.⁴¹ This was, however, a minute change in direction and structure when compared with the total Air Force. By 1964, the basic Air Force doctrinal manual at least recognized the possibility of small wars waged for limited objectives, but the emphasis remained as before. The manual devoted 11 pages of discussion to air operations in general and tactical nuclear warfare and a scant 2 pages to a discussion of conventional air operations. Under the heading of conventional air operations, strategic operations were not included, indicating there was no provision for strategic bombardment using nonnuclear weapons.⁴²

The 1964 version of Air Force doctrine was the doctrine with which the Air Force went to war in Vietnam. It was a doctrine that clearly reflected the concepts of Billy Mitchell four decades earlier. It remained so consistent with earlier concepts that as late as 1961, Gen Curtis LeMay could say, "I think we have been consistent in our concepts

since . . . 1935. Our basic doctrine has remained generally unchanged since that time."⁴³

If the doctrine remained relatively constant, it is worth analyzing the assumptions that formed the basis for that doctrine. Perhaps the most fundamental, if unstated, assumption was that American wars would be fought for unlimited objectives--to destroy the enemy. The objective of strategic bombing was to destroy the economic and social fabric of a nation and thus destroy the enemy's ability and will to continue the fight. This conceptualization fit well with the traditional American view of war as an aberration, a crusade waged as a final resort to destroy a well-defined evil.

The second major assumption undergirding Air Force doctrine was that America's enemies would be modern, industrialized nations. Strategic bombing theory was based upon the idea of destroying the enemy's ability to produce the wherewithal for war. Even interdiction efforts concentrated on attacking railroad chokepoints, highway bridges, and other transportation links used by modern industrial nations.

In the Korean War, the fundamental assumptions of air power doctrine were seriously challenged, but the lesson taken from that war was simply the cry for "No more Koreas." Unfortunately, in the mid-1960s, the United States entered a war in which both of the major assumptions of American air power doctrine would be challenged again.

ROLLING THUNDER 1965

By the beginning of 1965, the situation in South Vietnam was rapidly reaching crisis proportions. The three basic choices available to the United States were not particularly palatable. The United States could continue with a role essentially limited to aid and advisory action and risk humiliation if the situation continued to deteriorate and South Vietnamese resistance collapsed. Alternatively, the United States could recognize that the situation was irretrievable and cease to support the South Vietnamese. Such a "cut-and-run" strategy, many believed, might cast other American collective defense commitments in doubt and undermine important alliance arrangements. Finally, the United States could become more deeply involved and bring its military might to bear against the enemy to salvage the situation.

Air power seemed to offer a middle ground between continuation of the aid of advisory effort on the one hand and full-scale military involvement on the other hand. Using air power against North Vietnam would bring the war home to the North Vietnamese, would strike closer to the heart of the problem, and yet would avoid the bane of all Western military experts--involvement in a land war on the Asian continent. Air power seemed to offer the possibility of war at arm's length and on the cheap, although most policymakers realized that the use of air power would be cheap only by comparison with a manpower intensive land war.

While we believe that the risks of such a policy are acceptable, we emphasize that its costs are real. It implies significant US air losses even if no full air war is joined.

Yet measured against the costs of defeat in Vietnam, this program seems cheap. And even if it fails to turn the tide--as it may--the value of the effort seems to us to exceed its cost.⁴⁴

As early as March 1964, planning efforts got under way for possible air action against North Vietnam in the face of a rapidly deteriorating situation in South Vietnam. From this effort, the commander in chief, Pacific, developed CINCPAC OPLAN 37-64, a three-phased operations plan for the use of air power against enemy targets in Laos, Cambodia, and North Vietnam. As part of this effort, the planners drew up the so-called "94 Target List," with each target

selected on the basis of three criteria: (a) reducing North Vietnamese support of communist operations in Laos and South Vietnam, (b) limiting North Vietnamese capabilities to take direct action against Laos and South Vietnam, and finally (c) impairing North Vietnam's capacity to continue as an industrially viable state.⁴⁵

As 1964 progressed, the situation in South Vietnam continued to deteriorate and the enemy forces were emboldened to attack American installations and forces. The most notable incident was in the Gulf of Tonkin, where North Vietnamese patrol boats allegedly attacked American destroyers on two separate occasions. These incidents resulted in both the Gulf of Tonkin Resolution (in which Congress essentially authorized the president to take all actions he deemed necessary) and the first reprisal air raid against North Vietnam. In spite of the warning signal sent

via the reprisal raid, occasional attacks against American installations and personnel continued throughout the remainder of 1964.

After a particularly damaging attack on the American air base at Bien Hoa on 1 November 1964, the Joint Chiefs of Staff (JCS) recommended

a B-52 strike against Phuc Yen, the principal airfield near Hanoi . . . strikes against other airfields and major POL facilities in the Hanoi/Haiphong area . . . armed reconnaissance against infiltration routes in Laos, air strikes against infiltration routes and targets in North Vietnam, and progressive PACOM and SAC strikes against remaining military and industrial targets in the 94 Target List.⁴⁶

The criteria for selecting targets on the 94 Target List and the JCS plan for striking those targets clearly indicate that the JCS desired to wage a classic strategic bombing campaign and a complementary interdiction campaign against North Vietnam. The planners selected targets whose destruction would impair the enemy's ability "to continue as an industrially viable state." The campaign plan was to first gain air superiority with attacks on the principal enemy airfields. With freedom to operate, the campaign would continue with attacks on petroleum, oil, and lubricants (POL), and finally the progressive destruction of the enemy's industrial web. At the same time, an interdiction campaign would destroy war materiel already en route to South Vietnam. In essence, the JCS planned to take

the World War II bombing campaign in Europe and transplant it 20 years later in North Vietnam.

However, the American policy objective in Vietnam was not to destroy Vietnam or to limit its ability to continue as an "industrially viable state." this, it will be recalled, was merely a JCS target-selection criterion. Indeed, the American policy objective was to persuade the North Vietnamese to desist in their efforts by convincing them that they could not win. Moreover, a truly intense bombing campaign might provoke the Chinese to enter the contest and widen the war. President Lyndon Johnson was not ready to bow to the wishes of the JCS. Bombing, to Johnson, was a tool of politics to be used carefully and skillfully.

I saw our bombs as my political resources for negotiating a peace. On the one hand, our planes and our bombs could be used as carrots for the South, strengthening the morale of the South Vietnamese and pushing them to clean up their corrupt house, by demonstrating the depth of our commitment to the war. On the other hand, our bombs could be used as sticks against the North, pressuring North Vietnam to stop its aggression against the South. By keeping a lid on all the designated targets, I knew I could keep the control of the war in my own hands. If China reacted to our slow escalation by threatening to retaliate, we'd have plenty of time to ease off the bombing. But this control--so essential for preventing World War III--would be lost the moment we unleashed a total assault on the North--for that would be rape rather than seduction--and then there would be no turning back.⁴⁷ The Chinese reaction would be instant and total.

On 29 November 1964, an interagency working group chaired by Assistant Secretary of State William Bundy suggested a much more moderate approach than the JCS

proposal. The group recommended military pressure against North Vietnam, including air strikes, "designed to signal U.S. determination, to boost morale in the South and to increase the costs and strains upon the North."⁴⁸ The JCS dissented from the working group's report, preferring their own earlier recommendation for a short, sharp, and violent campaign against North Vietnam. But, as Bundy indicated in a note attached to the working group's report, the JCS believed that their intensive bombing campaign "could be suspended short of full destruction of the DRV if our objectives were earlier achieved."⁴⁹

The President refused to be stampeded, but his hand was forced two months later, on 7 February 1965, when the enemy attacked the American air base at Pleiku. President Johnson ordered a reprisal raid, Flaming Dart I, on 8 February. To this point, American reaction to enemy provocations had been limited to quid-pro-quo reprisal raids. But in the aftermath of the Pleiku attack, McGeorge Bundy, presidential assistant for national security, recommended a change in policy.

We believe that the best available way of increasing our chance of success in Vietnam is the development and execution of a policy of sustained reprisal against North Vietnam--a policy in which air and naval action against the North is justified by and related to the whole Viet Cong campaign of violence and terror in the South. . . .

This reprisal policy should begin at a low level. Its level of force and pressure should be increased only gradually . . . should be decreased if VC terror visibly decreases. The object would not be to "win" an air war against Hanoi, but

rather to influence the course of the struggle in the South. . . .

We believe, indeed, that it is of great importance that the level of reprisal be adjusted rapidly and visibly to both upward and downward shifts in the level of Viet Cong offenses. We want to keep before Hanoi the carrot of our desisting as well as the stick of continued pressure. We also need to conduct the application of the force so⁵⁰ that there is always a prospect of worse to come.

As discussions proceeded concerning the best course of action, the JCS submitted a three-phased 11-week bombing plan that would, by the end of phase three, have destroyed the bulk of the targets on the 94 Target List. The Air Force chief of staff, Gen J. P. McConnell, favored an even more intense 28-day bombing program to destroy the 94 targets quickly.⁵¹

On 10 February 1965, enemy forces attacked the American billet at Qui Nhon, which resulted in another retaliatory raid, Flaming Dart II, on 11 February. Significantly, however, public justification for the reprisal was not specifically linked to the Qui Nhon attack but rather to a long list of enemy outrages in South Vietnam.⁵² The stage was being set for a campaign of sustained and graduated bombing against North Vietnam. Two days later, on 13 February, President Johnson approved a program of sustained reprisals and increased military pressure resembling closely the concept proposed by McGeorge Bundy. The code name applied to the program was Rolling Thunder.

The objectives of the bombing campaign were an amalgam of the objectives suggested by William Bundy, McGeorge Bundy, and, to a lesser extent, the Joint Chiefs of Staff. These objectives were best summarized by Assistant Secretary of Defense John T. McNaughton in a 24 March 1965 memo:

(1) To reduce DRV/VC activities by affecting DRV will.

(2) To improve the GVN/VC relative balance of morale.

(3) To provide the US/GVN with a bargaining counter.

(4) To reduce DRV infiltration of men and materiel.

(5) To show the world the lengths to which US will go for a friend.⁵³

The first Rolling Thunder mission was scheduled for 20 February, but the unsettled political situation in Saigon forced a delay in the mission at the urgent request of the American Embassy in Saigon. Finally, on 2 March, 104 American Air Force aircraft attacked the Xom Bang ammunition depot just north of the demilitarized zone.⁵⁴ However, rather than a continuous program of sustained reprisal, Rolling Thunder was more of an isolated series of thunderclaps. The second mission was not launched until nearly two weeks after the first. On 15 March, both Tiger Island (off the coast of Vietnam) and an ammunition depot just north of the demilitarized zone were attacked.⁵⁵

Almost immediately, the military command structure and many civilian authorities protested that the campaign was

too sporadic and directed against unimportant targets. But the President was determined to retain tight personal control of the action. He simply did not trust his military advisors who, it seemed to him, saw the war only as a military problem.

And the generals. Oh, they'd love the war, too. It's hard to be a military hero without a war. Heroes need battles and bombs and bullets in order to be heroic. That's why I am suspicious of the military. They're always so narrow in their appraisal of everything. They see everything in military terms.⁵⁶

Commanders on the scene in Vietnam submitted their targeting recommendations to U. S. Grant Sharp, the commander in chief, Pacific, at Honolulu. Admiral Sharp's staff evaluated the recommendations and assembled them into a coordinated program, and forwarded the program to the Pentagon. In the Pentagon, the strike program was again evaluated. The strategic significance of each target was evaluated by military experts, and the State Department was asked to assess the international political implications of striking each target. After this sifting process was complete, the "scrubbed down" target recommendations were forwarded to the White House.⁵⁷

The results of this torturous process were target choices that the military considered insufficient to accomplish the purpose of Rolling Thunder, and rules of engagement that the military thought were far too restrictive to conduct effective and efficient military operations. In the first two Rolling Thunder missions, the

White House dictated the size of the striking force, its weapons, and the precise time of the attack. However, after 15 March, upon the strong recommendation of the military, the White House dropped certain restrictions. Targets were specified in week-long packages with the precise timing left to field commanders, and alternate targets were approved for bombing if the primary targets were obscured by weather.⁵⁸

Targets for the bombing campaign fell into two categories. The first category included fixed or numbered targets, which appeared on the 94 Target List. Any strike or restrike of these targets required individual authorization. The fixed-target list included traditional strategic targets such as electrical generation facilities and industrial plants.⁵⁹

What intelligence agencies liked to call the "modern industrial sector" of the economy was tiny even by Asian standards, producing only about 12 percent of the G.N.P. of \$1.6 billion in 1965. There were only a handful of "major industrial facilities." When NVN was first targeted, the J.C.S. found only eight industrial installations worth listing.

NVN's limited industry made little contribution to its military capabilities. . . . The great bulk of its military equipment, and all of the heavier and more sophisticated items, had to be imported.⁶⁰

From the military point of view, the geographic restrictions on the bombing campaign made the situation even more difficult. Although there were few strategic targets, at least in the classical sense, those that did exist were in areas off-limits to American aircraft. In 1965, American

bombing missions were not allowed within a 30-nautical mile radius of Hanoi, within a 10-nautical mile radius of Haiphong, or within a wide buffer zone along the Chinese border.⁶¹

Problems in executing even the limited bombing strikes of the early Rolling Thunder missions were immediately apparent. After the first two reprisal raids in February (Flaming Dart I and II), the bomb damage assessments were less than encouraging. A total of 267 sorties had been directed against 491 buildings, but only 47 buildings were destroyed and another 22 damaged. These dismal results prompted Secretary of Defense McNamara to send a caustic memorandum to the Joint Chiefs of Staff.

Our primary objective, of course, was to communicate our political resolve. . . . Future communications of resolve, however, will carry a hollow ring unless we accomplish more military damage than we have to date.⁶²

A later analysis indicated that at least part of the problem stemmed from aircrew training. Fighter-bomber crews were very proficient in the techniques required for the delivery of nuclear weapons, but far less practiced and proficient in the delivery of conventional munitions. When the Rolling Thunder campaign began, the average circular error probable (the radius of a circle centered on the target within which half of the bombs will fall) was nearly 750 feet. It took several years to increase bombing accuracy and achieve a circular error probable of 365 feet.⁶³ Although 750 feet may be an insignificant

inaccuracy when using nuclear weapons, it becomes very significant when dropping conventional explosives on small targets such as individual buildings or bridges.

As the Rolling Thunder campaign continued, the rationale and targeting emphasis began to shift. The initial purpose had been to attack the North Vietnamese will to fight, an attempt to persuade them to stop their support for the war in South Vietnam and to come to the negotiating table. In essence, the purpose was "strategic," even if the target selection (limited to southern North Vietnam) was not "strategic" in nature. Before the end of March, the Joint Chiefs of Staff formally proposed a 12-week bombing program, the purpose of which was to interdict the flow of men and materiel going to the south.⁶⁴ The President refused to approve any multiweek program, preferring to keep tighter control. However, the rationale for the campaign began to change and the targeting effort concentrated even more heavily on interdiction targets--bridges, tunnels, rail lines, river and canal transportation, and other perceived transportation chokepoints.⁶⁵

On 7 April, President Johnson publicly offered the "carrot" to go with the "stick" of Rolling Thunder. At Johns Hopkins University, he offered to assist both South and North Vietnam with a billion-dollar regional postwar development program. The offer was summarily rejected by North Vietnam. However, in mid-May, Rolling Thunder missions were halted for five days in an attempt to let the

North Vietnamese change their course without losing "face." The five-day bombing pause produced no results, and the campaign resumed on 18 May.

By mid-1965, the Rolling Thunder campaign had expanded significantly. Strikes against some of the targets on the JCS master list increased from 1 or 2 each week to 10 to 12 each week, and the interdiction effort began to take its toll on the primitive North Vietnamese transportation system. The area of bombing extended to just north of the 20th parallel. The number of total sorties flown each week rose to 900, four to five times the number of total sorties flown at the outset of the campaign.⁶⁶ But still there was no indication of a North Vietnamese willingness to desist in their support for the war in South Vietnam. If anything, the North Vietnamese seemed more defiant.

In July, a debate raged within the government over whether to escalate the American effort in Vietnam, particularly in South Vietnam, with American ground combat troops. As part of the debate, Secretary of Defense McNamara prepared a memorandum to the President on 1 July which called for

a total quarantine of the movement of war supplies into North Vietnam, by sea, rail, and road, through the mining of Haiphong and all other harbors and the destruction of rail and road bridges leading from China to Hanoi.⁶⁷

The Joint Chiefs of Staff fully supported McNamara's proposal, but went a step further. In addition to

McNamara's proposed interdiction campaign, the chiefs sought to destroy "the 'war making' supplies and facilities of NVN, especially POL."⁶⁸ In short, the chiefs again proposed a full-scale air offensive against North Vietnam including both strategic and interdiction efforts.

The President realized the implications of the proposals and sent McNamara on yet another fact-finding trip to Vietnam. The effect of the trip was to soften McNamara's position, and on 20 July he revised his 1 July proposals. Gone were the proposals to mine Haiphong and other harbors. McNamara essentially retreated to the campaign in progress. He called for a continuation of the slowly intensifying Rolling Thunder program, now centered on interdiction, while avoiding any population and industrial targets not directly related to North Vietnam's support of the Viet Cong.⁶⁹ This rapid change of heart remains one of the great mysteries of McNamara's tenure as secretary of defense, and one more reason the former secretary's refusal to discuss the war has been so frustrating for historians and military analysts.

The pattern was set for the remainder of 1965. There would be no sharp escalation of the air war in North Vietnam. Higher value strategic targets in the Hanoi-Haiphong areas would not be bombed. The effort would slowly increase and broaden to demonstrate to the North Vietnamese that much worse was in store for them if they did not seek a negotiated settlement. McNamara (and apparently his superior) believed that Rolling Thunder

should be structured to capitalize on fear of future attacks. At any time "pressure" on the DRV depends not upon the current level of bombing but rather upon the credible threat of future destruction which can be avoided by agreeing to negotiate or agreeing to some settlement in negotiations.

During the remainder of 1965, the military continued to press for a more aggressive bombing program, but to no avail. Meanwhile, a new debate raged within the government over whether or not to "pause " in the bombing to encourage the North Vietnamese to begin negotiations. Even if the pause did not result in negotiations, it could "clear the decks" politically for a far more aggressive bombing program after the pause. The President eventually decided that the bombing pause would be a worthwhile effort. The pause began on 24 December, lasted for a total of 37 days, and brought no positive results.

By the end of 1965, American air power had expended a massive effort in North Vietnam, but an effort that would pale in comparison with the following years. Even with the reins held tightly in Washington, Rolling Thunder in 1965 amassed 55,000 total sorties, which dropped 33,000 tons of bombs on 158 fixed targets and a far larger number of "targets of opportunity." But Rolling Thunder failed to bring the North Vietnamese to the negotiating table. It failed to stop the flow of men and materiel to the south or even to reduce the flow to the degree that the impact was clearly felt in the south. The bombing had, by all accounts, helped the morale of the South Vietnamese. But

this success was purchased at a high price, including the loss of 171 aircraft along with many of their crewmembers.⁷¹

Rolling Thunder would continue through 1966, 1967, and most of 1968. Gradual escalation would continue, although the reins on the campaign would remain tightly held in Washington. By October 1968, Rolling Thunder attacks were reported to have destroyed 77 percent of all ammunition depots, over 60 percent of all POL storage facilities, nearly 60 percent of North Vietnamese power plants, over 50 percent of all major bridges, and 40 percent of all railroad shops. In addition, 12,500 vessels, 10,000 vehicles, and 2,000 railroad cars and engines were reported destroyed.⁷² And yet, the North Vietnamese did not waver in their ability or will to continue. In contrast, the costs to the United States mounted and the American will to continue began to crumble.

ASSESSING A FAILURE

As originally conceived, the fundamental purpose of Rolling Thunder was to persuade the North Vietnamese to quit the war, or failing that, to entice them to the negotiating table to arrange a compromise settlement of the problems in Southeast Asia. In 1965, the campaign clearly failed to either persuade or entice the North Vietnamese.

There were some who believed that air power could quickly bring the North Vietnamese to heel. The Joint Chiefs of Staff recommended various formulations of short and sharp air campaigns such as their three-phased 11-week campaign proposal. At the same time, Air Force Chief of Staff McConnell recommended an even more intense 28-day campaign. The general notion seemed to be that the shocking application of modern air power would quickly intimidate a small, backward nation such as North Vietnam. Such was not to be the case, as air power was never applied in a shocking manner. The North Vietnamese remained intransigent throughout 1965, even though they were punished by the stick of bombing and offered the carrot of postwar development funds. Rolling Thunder failed in its most fundamental and important purpose.

A secondary objective of Rolling Thunder was to reduce, if not stop, the flow of men and materiel being sent by North Vietnam into South Vietnam. Clearly, the campaign did not stop the flow going south. It is also clear that Rolling Thunder inflicted grievous (if temporary) damage to

North Vietnam's primitive transportation system and extracted a heavy toll from the men and materiel moving toward South Vietnam. However, over the course of the campaign, the infiltration from North Vietnam continued and is generally acknowledged to have increased over time. In this sense, the interdiction campaign was a failure. On the other hand, apologists for air power speculate that without the attrition inflicted by Rolling Thunder, the rate of infiltration might have been much greater, perhaps putting the war effort in South Vietnam in serious jeopardy in 1965 and 1966.

The final objective of Rolling Thunder, at least in the tense days of 1965, was to raise the morale and fighting spirit of the South Vietnamese. There seems to have been a consensus among the American leadership that South Vietnamese morale did improve. However, morale is difficult to measure, its causes difficult to attribute, and its tenure difficult to maintain.

The clearer vision of hindsight reveals that many of the perceptions of the war held by the civilian leadership were, at best, questionable. Even though the American leadership viewed the problem in Vietnam as part of a larger global struggle, the war in Vietnam had many of the characteristics of a civil war in terms of its ferocity and the tenacity of the enemy. Civil wars tend to be bitterly contested and rarely settled by compromise. In retrospect,

it may have been that any hope of seducing the enemy into a compromise settlement was doomed from the very beginning.

It is also probable that the perceived threat of effective Chinese military intervention was overstated. The provocation of American aircraft over North Vietnam was a far cry from the provocation of American troops on the banks of the Yalu River in Korea. But more important were practical military considerations that confronted the Chinese. The ground war was hundreds of miles from the Chinese border, which would have presented the Chinese with serious problems in the transportation of troops, supplies, and equipment. This problem would have been exacerbated by American air power which dominated the skies all along the route of South Vietnam. The intervention of Chinese air power might have been more likely, by the combat effectiveness of, at best, a second-rate air force pitted against sophisticated American air power is questionable.

The Rolling Thunder campaign might have been conducted in a far different manner had the perceptions of the situation been more accurate. However, it is unwarranted, based on the available evidence, to assume that conducting the campaign differently would have led to any greater degree of success. Some have argued that had air power been "turned loose" in 1965 as it was in 1972 during the Linebacker campaigns, the conflict could have been brought quickly to an end. This line of reasoning may present something of a red herring because there were significant

differences in the situation. By 1972, the conflict had the familiar trappings of a conventional war involving large numbers of North Vietnamese regular army units brandishing the implements of mechanized warfare, all demanding considerable logistical support from North Vietnam. In 1965, by contrast, direct North Vietnamese involvement in the South was much more limited and the indigenous Viet Cong comprised the bulk of the hostile forces (and would continue to do so until the Tet Offensive in 1968). In short, the situation in 1965 was very dissimilar to the situation in 1972.

The point remains, however, that wars will be conducted in conformance with the perceptions held at the highest political levels. The evidence indicates that in spite of strong military advice to change radically the conduct of the war, the perceptions of the civilian leadership triumphed, and the conduct of the war was forced to conform with those perceptions. Rolling Thunder in 1965 is just one example of this broader principle. The military advice given to the civilian leadership about the conduct of Rolling Thunder--that it be a short campaign of great intensity--did not fit within the perceptual framework of the civilian leadership and was rejected during 1965. For professional military advice to be accepted by the civilian leadership, either it will have to conform to the leadership's perceptions or their perceptions will have to change. The inability of the military to offer acceptable

alternatives brings this paper to an evaluation of the impact of air power doctrine on the Rolling Thunder campaign.

In a sense, the Vietnam War bankrupted American air power doctrine. The nature of the American objectives in Vietnam and the nature of the enemy the United States faced in that war undermined the two assumptions that formed the foundation of American air power doctrine since the Mitchell era of the 1920s. The American objective in Vietnam was not unlimited and was not calculated to destroy North Vietnam. American air power would not be unleashed in a major strategic bombing campaign to destroy the enemy's "vital centers" and to destroy the enemy's will and ability to continue the war. North Vietnam was not a modern, industrialized state, contrary to the second assumption of American air power doctrine. If American air power had been unleashed, there were precious few high-value strategic targets located in Vietnam. Even when the Rolling Thunder campaign turned to interdiction in mid-1965, the primitive North Vietnamese transportation system proved to be somewhat of an advantage to the enemy. The North Vietnamese quickly repaired primitive roads and structures, and the entire transportation system displayed more than adequate resilience.

The United States had structured, trained, and equipped its air power to prosecute major, unlimited wars against industrialized enemies and to do so by relying on nuclear

weapons. The doctrine began to shift in the early 1960s, but not to a significant degree and not to the degree at which the fundamental assumptions were seriously challenged. As a result, the military had few air power alternatives to offer in Vietnam except those based on their existing doctrine, and those alternatives were politically unacceptable. In essence, at least during the 1965 Rolling Thunder campaign, American air power doctrine was bankrupt.

The doctrinal void probably also contributed to the close control President Johnson maintained over the Rolling Thunder campaign. The alternatives the military suggested were unacceptable given the President's perceptions. And yet, these same alternatives based on an inappropriate doctrine were offered time and again. It is not surprising, therefore, that the President expressed considerable distrust of his generals and that he kept Rolling Thunder under his personal control.

There is a danger in overdrawing the conclusions of this study. There is no hard evidence that more accurate perceptions of the situation in Vietnam would have led to more effective prosecution of the Rolling Thunder campaign. Similarly, there is no hard evidence that more appropriate American air power doctrine would have produced more acceptable and effective methods of prosecuting the campaign.

Although there is a danger in overdrawing the conclusions of this essay, the evidence does raise some

difficult questions pertinent to the military more than a decade after the fall of Saigon. The most obvious question concerns methods of improving the interface between the civilian and military leadership. It is clear that the civilian leadership either did not trust or did not believe the tendered military advice concerning the use of air power over North Vietnam. Although different command structures and arrangements may help to alleviate the interface problem, the evidence from 1965 at least suggests that the civilian leadership did not believe the military understood the peculiar constraints and objectives present in the Vietnamese struggle. The evidence also suggests that the civilian leadership had good cause to doubt the military's understanding, even though the understanding of the civilian leadership also lacked significant insight. The root of the problem was that the war in Vietnam was not the kind of war the military expected. It was not a large-scale war fought against a major power. The question for the post-Vietnam military is, of course, is the American military any better prepared to fight such a war today? Unless the civilian leadership is convinced that the military is prepared for the kind of conflict at hand (whatever kind of conflict that may be), the civilian-military interface will be strained, at best.

Preparing for different kinds of wars naturally leads to more specific questions about wars such as the one fought in Southeast Asia. Can wars that are essentially civil wars

be settled by compromise? If not, then American policymakers face some very difficult decisions. If we get involved militarily, a strategy of graduated military pressure seems to be inappropriate. Military action would have to be much more drastic to be effective and would at the same time exacerbate the risks of escalation. If such wars can be settled by compromise, it is reasonably clear that faster and more effective methods of forcing the compromise must be found if American involvement is to be effective.

The use of air power in such conflicts also remains open to question. What is the best and most effective use of air power against such an enemy, particularly if that enemy uses guerrilla tactics, the classic ploy of the weak fighting the strong? Can "strategic" bombing be effective if there are few "strategic" targets? Can interdiction efforts be made effective if the guerrilla controls the tempo of battle? Even if strategic and interdiction missions can have some effect, are they worth the probable cost in men and equipment?

Working down the ladder of abstraction, all of these questions bring us to the issue of American air power doctrine and the complex world of modern warfare. How should air power doctrine be developed? Should it be developed to counter the worst case, that is, to counter the probable actions of our most formidable enemy in the areas

we consider most vital? Or, should our doctrine be predicated on the most likely prospect, which may be similar to the kind of struggle waged in Vietnam? Or should our doctrine consider both possibilities--and is it possible to do justice to both forms of warfare?

One final concern is worth our attention. It is clear that in 1965 we understood our air power doctrine. The doctrine might have been inappropriate for the war in Vietnam, but the fact remains we believed we understood how air power should best be used and we had great confidence in our beliefs. In the aftermath of Vietnam and in the midst of the doubts that war raised, can we honestly say that we know how air power can best be used to achieve decisive results across the spectrum of conflict? An examination of the rapidly changing air power doctrinal manuals published since the war leaves this issue in considerable doubt.

NOTES

A note about sources. The richest source of unclassified original documents concerning the Vietnam War is the so-called Pentagon Papers. Collections of these documents and accompanying analyses have been published in three different versions, each with its own strengths and weaknesses. I have used two versions to document this paper. The first is the official government version, properly titled United States-Vietnam Relations 1945-1967 and published by the Government Printing Office. I have also used a version produced by the New York Times entitled The Pentagon Papers. When using these references, I have cited the actual documents (letters, memos, etc.) contained in the reference, where appropriate. In those cases where a specific document is not cited, the citation refers to the analysis portion of the reference.

1. A superior short synopsis of the postwar strategy debate is found in George C. Herring, "American Strategy in Vietnam: The Postwar Debate," Military Affairs 46 (April 1982), 57-63.

2. Scapegoats have fallen into three general categories. Many in the military blame the civilian leadership. See, for example, Adm U. S. G. Sharp, Strategy for Defeat: Vietnam in Retrospect (San Rafael, California: Presidio Press, 1978). Others blame the military leadership. See, for example, Guenter Lewy, America in Vietnam (New York: Oxford University Press,

1978). Still others blame the impatient nature of the American people. See, for example, Sir Robert Thompson, No Exit From Vietnam (New York: David McKay Company, 1969).

3. Among the senior leaders who have not written memoirs are Secretary of Defense McNamara, Gen Earle G. Wheeler, and General McConnell.

4. One excellent attempt to describe these relationships is found in Daniel S. Papp, Vietnam: The View from Moscow, Peking, Washington (Jefferson, N.C.: McFarland & Company, Inc., 1981).

5. "A Threat to the Peace: North Viet-Nam's Effort to Conquer South Viet-Nam," Department of State Publication 7308, 1961, as quoted in George M. Kahin and John W. Lewis, The United States in Vietnam (New York: Dell Publishing Company, 1969), 470-72.

6. Ibid.

7. "Aggression from the North: The Record of North Viet-Nam's Campaign to Conquer South Viet-Nam," Department of State Publication 7839, 1965, as quoted in Kahin and Lewis, 479-82.

8. William C. Westmoreland, A Soldier Reports (New York: Dell Publishing Company, 1980), 543.

9. Ibid., 143

10. Department of State Bulletin, 26 April 1965, as quoted in Kahin and Lewis, 496-503.

11. Ibid.
12. William Bundy, "Draft Position Paper on Southeast Asia" (29 November 1964), in The Pentagon Papers (New York Times edition), ed. Gerald Gold, Allan M. Siegal, and Samuel Abt (New York: Bantam Books, Inc., 1971), 373-78, (hereafter cited as Pentagon Papers).
13. Westmoreland, A Soldier Reports, 183.
14. Ibid., 175-94.
15. Robert S. McNamara, "South Vietnam" (Memorandum to President Lyndon B. Johnson, 16 March 1964); Pentagon Papers, 277-83.
16. Westmoreland, A Soldier Reports, 126.
17. Ibid., 131.
18. William C. Westmoreland, "Report on Operations in South Vietnam January 1964-June 1968," in Report on the War in Vietnam (as of June 1968) (Washington, D.C.: Government Printing Office, undated), 97.
19. Robert F. Futrell, Ideas, Concepts, Doctrine: A History of Basic Thinking in the United States Air Force 1907-1967 (Maxwell Air Force Base, Ala.: Air University, 1971), 17-19.
20. Ibid., 26.
21. Ibid., 28.
22. Training Regulation No. 440-15, Fundamental Principles for the Employment of the Air Service, 26 January 1926, 1.
23. Futrell, Ideas, Concepts, Doctrine, 32.

24. Haywood S. Hansell, Jr., The Air Plan that Defeated Hitler (Atlanta: Higgins-McArthur/Longino & Porter, Inc., 1973), 18.

25. Ibid., 32-33.

26. Training Regulation No. 440-15, Employment of the Air Forces of the Army, 15 October 1935, 2-3.

27. Hansell, in The Air-Plan, lists several such faculty members throughout his book, including the later Lt Gen Harold Lee George, Maj Gen Robert Olds, Brig Gen Kenneth L. Walker, Maj Gen Claire L. Chennault, Gen Muir Fairchild, and of course Hansell himself.

28. Ibid., 6.

29. The United States Strategic Bombing Survey, Summary Report (European War) (Washington, D.C.: Government Printing Office, 30 September 1945), Foreword and 22.

30. The United States Strategic Bombing Survey, Summary Report (Pacific War) (Washington, D.C.: Government Printing Office, 1 July 1946), 26.

31. Field Manual 100-20, Command and Employment of Air Power (Washington, D.C.: Government Printing Office, 21 July 1943), 16.

32. Wesley Frank Craven and James Lea Cate, eds., The Army Air Forces in World War II, vol. 3, Europe: Argument to V-E Day (Chicago: University of Chicago Press, 1948-1958. New imprint, Washington, D.C.: Office of Air Force History, 1983), 383-84.

33. Ibid., 395.

34. Robert F. Futrell, The United States Air Force in Korea 1950-1953, rev. ed. (Washington, D.C.: Office of Air Force History, 1983), 471.

35. Futrell, Ideas, Concepts, Doctrine, 227.

36. AFM 1-1, United States Air Force Basic Doctrine, 1 April 1954, 4.

37. Ibid., 14.

38. Futrell, Ideas, Concepts, Doctrine, 232.

39. Maxwell D. Taylor, The Uncertain Trumpet (New York: Harper & Brothers, Publishers, 1960). See, in particular, chapter 8, 130-64.

40. Futrell, Ideas, Concepts, Doctrine, 351.

41. Ibid., 409.

42. AFM 1-1, United States Air Force Basic Doctrine, 14 August 1964, 5-1 through 5-10.

43. Futrell, Ideas, Concepts, Doctrine, 405.

44. McGeorge Bundy, "A Policy of Sustained Reprisal," Annex A (7 February 1965), as found in United States-Vietnam Relations 1945-1967 (Washington, D.C.: Government Printing Office, 1971), IV., C. 3:35 (hereafter cited as US-Vietnam).

45. US-Vietnam, IV., C. 3:4.

46. Ibid., 4.

47. Doris Kearns, Lyndon Johnson and the American Dream (New York: Harper & Row, Publishers, 1976), 264-65.

48. US-Vietnam, IV., C. 3:4.

49. William Bundy, "Draft Position Paper on Southeast Asia" (29 November 1964), Pentagon Papers, 378.
50. US-Vietnam, IV., C. 3:35-38.
51. Ibid., 44-46.
52. Ibid., xi.
53. John T. McNaughton, "Annex--Plan for Action for South Vietnam" (24 March 1965), Pentagon Papers, 434.
54. US-Vietnam, IV., C. 3:64.
55. Ibid., 69.
56. Kearns, Lyndon Johnson, 252.
57. John Morrocco, Thunder From Above (Boston: Boston Publishing Company, 1984), 56.
58. US-Vietnam, IV., C. 3:71-72.
59. The Air War in Indochina, ed. Raphael Littauer and Norman Uphoff (Boston: Beacon Press, 1972), 37.
60. Ibid.
61. Ibid.
62. US-Vietnam, IV., C. 3:64.
63. George Weiss, "Tac Air: Present and Future Lessons, Problems, and Needs," Armed Forces Journal, September 1971, 31.
64. US-Vietnam, IV., C. 3:77.
65. Ibid., 79.
66. US-Vietnam, V., C. 7. (a):2.
67. Ibid., 9.
68. Ibid., 9-10.
69. Ibid., 11-12.

70. Ibid., 15.

71. Guenter Lewy, America in Vietnam (New York: Oxford University Press, 1978), 381.

72. Ibid., 390.

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